

**ABSTRACT**

A fuel cell is protected from performance degradation and damage by determining when an ion exchange resin filter needs replacement before the occurrence of an increase in the electric conductivity of water used in the fuel cell system. The replacement time of the ion exchange resin filter 11 is judged by an ion-exchange capacity judging part 152 on the basis of the result of comparing a reference electric conductivity as preset with the electric conductivity of coolant water circulating in a coolant water cycle as measured by an electric conductivity meter 12 a predetermined time after a coolant water pump 14 starts operation.